



We would like to thank the many participants who have contributed to the research conducted at Joondalup Health Campus, who have helped us to improve our care.

Joondalup Health Campus acknowledges the Whadjuk people of the Noongar Nation as the Traditional Custodians of the lands upon which we are located. We pay our respects to Elders past and present.

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## Introduction

## Introduction From the Chief Executive Officer

Welcome to the 2021-22 Joondalup Health Campus Research Report highlighting the research activity undertaken at our hospital over the past year.

The last 12 months have been another challenging period in healthcare, but the research portfolio at Joondalup Health Campus has continued to grow, with more than 130 projects currently underway. Research represents the mechanism by which we continue to improve patient care and it is pleasing to see that results from a number of research projects have already been translated into direct changes to clinical care at our hospital. Publications showcasing our research also contribute to the breadth of scientific knowledge and allow changes to be realized at other health care sites.

A highpoint of the past 12 months has certainly been the establishment of a formal clinical trials service at Joondalup Health Campus. This service will allow patients in the Northern corridor of Perth to access innovative care in a research context. There are already two trials underway in the unit and it is anticipated that this service will continue to grow over the coming years.

We thank the clinicians and researchers at Joondalup Health Campus for their enthusiasm and their commitment to improving patient care.

# **Dr Amanda Ling**Chief Executive Officer Joondalup Health Campus





# Research publications in medical journals

## 2021-2022

>130

>130 research projects currently underway

23

**23 Clinical trials** currently underway

>2500

>2500 research participants recruited over the last 12 months

## Research in:

- Dietetics
- Occupational Therapy
- Physiotherapy
- Speech Pathology
- Cardiology
- Emergency Medicine
- General Medicine
- Training
- Immunology
- Infectious Diseases
- Intensive Care Medicine
- Mental Health
- Nursing
- Midwifery

- Obstetrics
- Gynaecology
- Oncology
- Haematology
- Paediatrics
- Neonatology
- Orthopaedics
- Rehabilitation
- Geriatrics
- Renal Medicine
- Respiratory Medicine
- Stroke Service
- Surgery

## Research & Ethics Department

The last 12 months have been another challenging period for health care workers and medical researchers across the globe as COVID-19 continues to affect daily life.

Despite this, the research portfolio at Joondalup Health Campus continues to grow with 26 new research projects commenced over the last 12 months and more than 130 projects currently underway.

Key achievements over the previous 12 months have included:

- Streamlining the process for the review, approval and initiation of research at Joondalup Health Campus, including management of the RHC WAISA HREC and transition to a new application submission portal (in conjunction with the National Research Unit);
- Establishment of a new Clinical Trial Service at Joondalup Health Campus;
- Celebration of the research undertaken at Joondalup Health Campus at our Annual Research Week in October 2021;
- Contribution to local and national research agendas, guidelines and policy development on behalf of Joondalup Health Campus.

#### Clinical Trials Service

2021-2022 saw the establishment of a formal Clinical Trial Service at Joondalup Health Campus (JHC) with the appointment of Senior Clinical Trial Coordinator, Ms Danita Kapp in January 2022. Danita brings a wealth of experience in oncology trials with her and has been instrumental in establishing the foundations for a robust clinical trial service at JHC.

The unit will focus initially on medical oncology and some paediatric trials, with plans to expand to accommodate trials in other specialties as interest grows. Since February 2022, clinical trials have been included as a core health service business under the Australian Health Service Safety and Quality Accreditation (AHSSQA) Scheme and health service organisations will be assessed for clinical trial service provision. Doctors and hospital staff involved in clinical trials are trained to provide best practice patient care and to improve health care services by raising standards of treatment.

As at 30 June 2022, the Clinical Trial Unit at JHC was undertaking the following trials:

- PACIFIC-R: First real-world data on unresectable stage III NSCLC patients treated with durvalumab after chemotherapy
- EVOKE-02: An Open-label, Multicenter, Phase 2 Study of Sacituzumab Govitecan Combinations in First-line Treatment of Patients with Advanced or Metastatic Non– Small-Cell Lung Cancer (NSCLC) Without Actionable Genomic Alterations

There are an additional 21 clinical trials underway across the hospital in disciplines as diverse as paediatrics, physiotherapy, orthopaedics and surgery.

#### Joanna Brisbane

Manager, Research & Ethics Department, Joondalup Health Campus



(L-R): Joanna Brisbane (Research & Ethics Manager), Danita Kapp (Senior Clinical Trial Coordinator), Tina Masters (Research Administration Assistant)

# Ramsay Health Care WA | SA Human Research Ethics Committee

A Human Research Ethics Committee (HREC) considers the ethical implications of any proposed research project it reviews and determines whether or not the project is acceptable on ethical grounds. A HREC also provides ethical oversight of research projects which are underway and monitors such projects until completion.

A HREC must be constituted in accordance with guidelines stipulated in the National Statement (NS) on Ethical Conduct in Human Research, 2007 (Updated 2018) and will have representation from a diverse group, including lay representation.

The Ramsay Health Care (RHC) WAISA HREC provides ethical review of proposed research at all RHC sites in Western and South Australia and a limited number of external sites. Between 1 July 2021 and 30 June 2022, 51 applications were received by the RHC WAISA HREC Office. Of these, the RHC WAISA HREC reviewed:

- 41 applications to conduct research projects (5 of which met the criteria for low-risk research and were reviewed via an expedited review pathway.)
- 106 requests to amend existing projects (63 of which met the criteria for a low-risk amendment and were reviewed via an expedited review pathway.)

There were eight HREC meetings held across 2021-22 and HREC members, all of whom are volunteers, are to be commended for their commitment to reviewing the submitted applications to ensure the provision of high-quality, ethical research across Ramsay Health Care sites. A number of HREC members were supported by Ramsay Health Care to undertake further education and training relating to their role on the HREC.

## RHC WAISA HREC Member List – 2021-2022:

#### Chairperson (NS5.1.30a)

A/Professor Paul Porter

#### Layperson - Male (NS5.1.30b)

- Mr Tim Benson
- Mr Peter Erskine

#### Layperson - Female (NS5.1.30b)

- Ms Kate McGee
- Ms Corinna Musgrave

## Individual involved in the care, counselling or treatment of people (NS5.1.30c)

- Dr Amanda Ling
- Ms Linda Locke
- Ms Sarah Oplaat
- Dr Brad Power (resigned October 2021)
- Ms Kathryn Ramsay
- Ms Mary Rigby

## Individual who performs a pastoral care role (NS5.1.30d)

- Ms Sandy Kilpatrick
- Ms Cate Vose

#### A lawyer

- Mr Bruce Kent
- · Ms Sharron Wise

## At least two individuals with current, relevant research experience (NS5.1.30f)

- Dr Terry Bayliss
- Dr Joe Cardaci
- Dr Tracey Coventry
- Dr David Holthouse (joined June 2022)
- Dr Sarah Harris
- Dr Mathew Samuel (resigned March 2022)
- Dr Carol Wang

## Research Approved Using a Waiver of Consent

All research involving the collection, use or disclosure of identifiable health information, where the requirement for consent is waived, must be reviewed by a full HREC. If the HREC determines that the public interest in the proposed activity outweighs the public interest in the protection of privacy, the requirement for consent can be waived. The following projects were approved by the RHC WAISA HREC without the requirement for participant consent:

#### Pneumocystis jirovecii pneumonia in cancer patients

A retrospective analysis of cancer patients treated at Hollywood Private Hospital for pneumocystis jirovecii pneumonia (PJP) between 2010 and 2020 will describe the incidence of PJP in cancer and haematology patients at a single institution over the last ten years, and describe the presenting symptoms, clinical course, response to treatment and incidence of previously identified risk factors for this condition.

## Falls in an acute mental health setting: A retrospective review

A retrospective review of fall incidents for all inpatients aged 18 and above, who had experienced a fall in the period July 2019 to June 2021 within the Mental Health Unit at Hollywood Private Hospital. Details including fall incidents, contributing factors, falls risk screen, preventative strategies, and post fall management will be collected and help the researchers to identify fall risk factors and provide insights to the current fall prevention initiatives provided for mental health inpatients.

## Transcranial Magnetic Stimulation (TMS) data analysis

The aim of this study, underway at the Adelaide Clinic, is to assess whether baseline symptom profile (depression and anxiety rating scores) and clinical variables (age, sex, illness duration, age at illness onset) can predict patient response to transcranial magnetic stimulation using machine learning.

#### A/Professor Paul Porter

Ramsay Health Care WAISA HREC Chairperson













## Improving how we manage delirium in our hospital

A/Professor Beverley Ewens, Dr Karla Seaman, Professor Lisa Whitehead, Dr Amanda Towell-Barnard, Edith Cowan University & Michelle Young, Joondalup Health Campus



Acute delirium is a distressing condition which causes a temporary disruption of thought processes and behaviour in some patients. Delirium can occur following an illness or surgery and is more prevalent in older people, and can be difficult to recognise and manage but is reversible. The aim of this study conducted at Joondalup Health Campus with researchers from ECU and a multi professional team at Joondalup Health Campus, was to determine the level of knowledge of delirium amongst health care staff caring for patients at high risk of developing it. The study also aimed to determine if a staff education program improved their ability to assess and identify patients for the presence of delirium. The findings from this study indicated that the education program improved the use of delirium assessment tools and increased knowledge of risk factors for delirium amongst health care staff.

## Listening to our youngest patients

Dr Mandie Foster & Professor Lisa Whitehead, Edith Cowan University with researchers from Lund University, Sweden



This study, conducted in the Telethon Children's Ward at Joondalup Health Campus, explored the experiences of hospitalisation amongst school-aged children to determine how to best meet their care needs. Allowing children to have input into their own care and providing a welcoming and child-friendly environment were raised by the children as being important to them during their hospital stay. The findings from this research will help clinicians caring for children accommodate the needs of our youngest patients.

## Understanding the challenges to young families during the pandemic

Dr Lisa Gibson, Telethon Kids Institute, and researchers from the ORIGINS and Born in Bradford Projects



Young families participating in the ORIGINS Project (underway at Joondalup Health Campus) and also in the Born in Bradford Project (in the UK) were asked about their worries, concerns and enjoyable experiences during the pandemic. Close to 1000 families responded with similar worries and challenges during the lockdown period, including: employment/finances, health anxiety, mental health and social isolation, caring for children and child development. This type of data can be used to inform the development of support services, public health campaigns and interventions to assist families in future health crises.



## Understanding voices and beliefs during psychosis and trauma

Dr Peter Melvill-Smith and others



This multi-site study compared voice characteristics and beliefs in participants diagnosed with post-traumatic stress disorder with dissociation, schizophrenia and both diagnoses and found similarities in voice frequency, duration, location, content and disruption across these conditions. This study may have implications for how patients with these conditions are managed – treatments successfully in use for one condition may be beneficial in a wider group of patients.

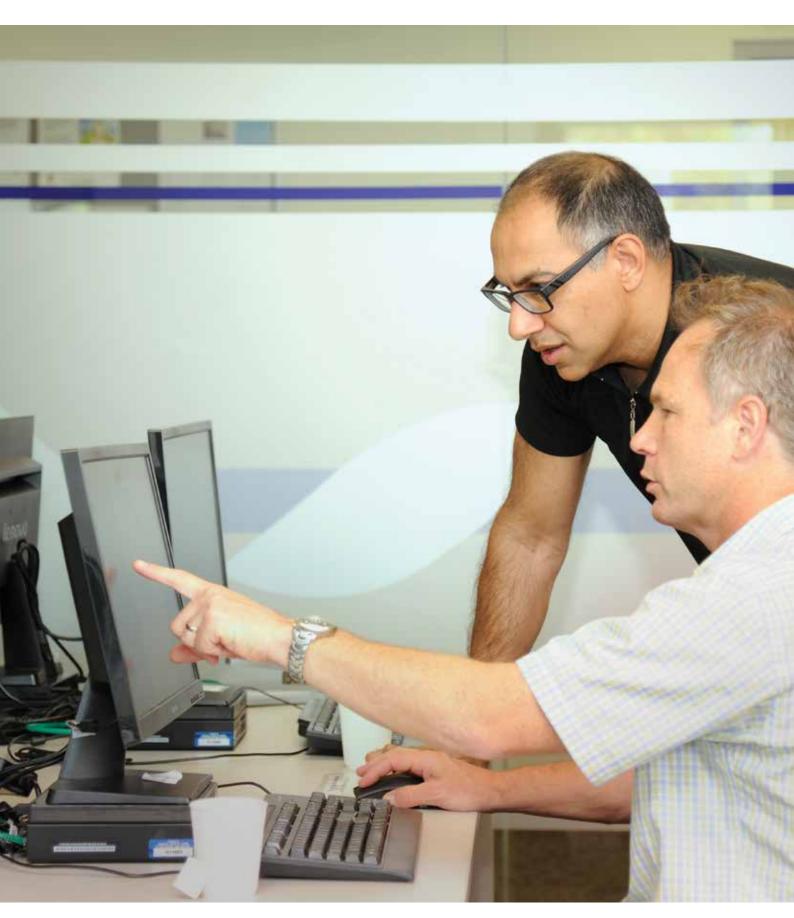
#### Helping our kids to flourish

Professor Desiree Silva & researchers from the ORIGINS Project



The ORIGINS Project, a large-scale cohort study collaboration between Joondalup Health Campus and the Telethon Kids Institute, is now well past the halfway point in recruitment - with 7,500 of the proposed 10,000 children recruited. The ORIGINS Project focuses on the early environment (including pregnancy) to understand which factors affect a child's growth and development and to determine how best to help children and their families to reach their full potential. The ORIGINS Project is also unique in the fact that it provides real-time feedback to parents at an individual level and refers children for further support where indicated. There are currently more than 40 ORIGINS sub-projects underway investigating areas as diverse as allergy prevention, nature-connectedness, screen-time, wellbeing, mindfulness and school-readiness. There are now more than 315,000 samples in the biobank and more than 14 million datapoints representing a rich data source for future research.





### Research Week 2021

Joondalup Health Campus staff once again gathered in October 2021 to celebrate all things research.

We were again fortunate to have an interesting and diverse array of guest speakers presenting their research activities. Some highlights of the week included presentations by the following external speakers:

- Dr Esther Adama (Edith Cowan University): "Supporting the needs of parents in neonatal units"
- Ms Jackie Davis (Telethon Kids Institute): "The ORIGINS Project: Profile of the First 5,000 Families"
- **Nivedithaa Divakara**, (University of Western Australia): "Quantification of bioactive compounds in human milk that may play a role in allergy prevention"
- Dr Sarah Hall (Curtin University and Perth Children's Hospital): "Early Moves Study: Early Detection of Developmental Difficulties"
- Ben Horgan (Consumer and Community Involvement Coordinator, WAHTN): "Involving Consumers in Research"
- Dr Liz Starcevich (Telethon Kids Institute): "Airway epithelium and respiratory illnesses"
- Dr Carol Wang (Edith Cowan University): "Integrative medicine, its place in nursing: A holistic approach to combat chronic pain"

#### Research Week Prizes

A number of prizes were awarded for research presentations.

Kathryn Ramsay from the JHC Speech Pathology Department was awarded a prize for the best "Rapid Research Presentation". Kathryn ably presented the findings of her research project titled: "Working Together: Giving our Clinicians the skills to



Kathryn Ramsay

**provide best evidence-based practice in Parkinson's disease"** in under five minutes and was awarded a \$500 prize to fund further research/education.

Hayley Deacon and Jessamy Stibbs from the Physiotherapy Department were awarded a prize for the best Research Poster for their work titled "Time to clearance from spinal precautions in patients with spinal fractures: A review into factors contributing to delays". For this work they were also awarded a \$500 prize for research/education use and scooped up the popular vote prize of \$100 as well.





## The following research articles involved staff or patients of Joondalup Health Campus and were published in 2021-2022:

- 1. Ashwin D, Gibson L, Hagemann E, D'Vaz N, Bear N, Silva D. The impact a Mediterranean Diet in the third trimester of pregnancy has on neonatal body fat percentage. *J Dev Orig Health Dis.* Aug 2022;13(4):500-507. doi:10.1017/s2040174421000556.
- 2. Bailey RL, Ramanan M, Litton E, et al. Staff perceptions of family access and visitation policies in Australian and New Zealand intensive care units: The WELCOME-ICU survey. *Aust Crit Care*. Jul 2022;35(4):383-390. doi:10.1016/j. aucc.2021.06.014.
- **3.** Bandala-Sanchez E, Roth-Schulze AJ, Oakey H, et al. Women with type 1 diabetes exhibit a progressive increase in gut Saccharomyces cerevisiae in pregnancy associated with evidence of gut inflammation. *Diabetes Research and Clinical Practice*. 2022/02/01/ 2022;184:109189. doi:https://doi.org/10.1016/j.diabres.2022.109189.
- **4.** Begum H, Neto AS, Alliegro P, et al. People in intensive care with COVID-19: demographic and clinical features during the first, second, and third pandemic waves in Australia. *Med J Aust.* Jun 9 2022;doi:10.5694/mja2.51590.
- **5.** Bell L, Jongeling B, Silva D. Western Australian Private Paediatric Waiting Lists Survey. *J Paediatr Child Health*. Aug 2021;57(8):1346-1347. doi:10.1111/jpc.15614.
- **6.** Bellinge JW, Petrov GP, Taggu W. Reel syndrome, a diagnostic conundrum: a case report. *Eur Heart J Case Rep.* © The Author(s) 2021. Published by Oxford University Press on behalf of the European Society of Cardiology.; 2021:ytab394. vol. 10.
- Bunting J, de Klerk M. Strategies to Improve Compliance with Clinical Nursing Documentation Guidelines in the Acute Hospital Setting: A Systematic Review and Analysis. SAGE Open Nurs. Jan-Dec 2022;8:23779608221075165. doi:10.1177/23779608221075165.
- **8.** Burrell AJC, Serpa Neto A, Trapani T, Broadley T, French C, Udy AA. Rapid Translation of COVID-19 Preprint Data into Critical Care Practice. *Am J Respir Crit Care Med*. Feb 1 2021;203(3):368-371. doi:10.1164/rccm.202009-3661LE.
- **9.** Chen P, Carville K, Swanson T, et al. Australian guideline on wound healing interventions to enhance healing of foot ulcers: part of the 2021 Australian evidence-based guidelines for diabetes-related foot disease. *J Foot Ankle Res.* May 25 2022;15(1):40. doi:10.1186/s13047-022-00544-5.
- **10.** Claxton S, Porter P, Brisbane J, et al. Identifying acute exacerbations of chronic obstructive pulmonary disease using patient-reported symptoms and cough feature analysis. *NPJ Digit Med.* Jul 02 2021;4(1):107. doi:10.1038/s41746-021-00472-x.
- **11.** Connolly L, Briggs E. Acquired pyroglutamic acidaemia in a critically ill patient with chronic paracetamol use: A case report. *SAGE Open Med Case Rep.* 2022.; 2022:2050313x211068561.
- **12.** Ewens B, Seaman K, Whitehead L, Towell-Barnard A, Young M. A delirium prevalence audit and a pre and post evaluation of an interprofessional education intervention to increase staff knowledge about delirium in older adults. *BMC Nurs*. Oct 19 2021;20(1):202. doi:10.1186/s12912-021-00692-2.
- **13.** Foster M, Quaye AA, Whitehead L, Hallström IK. Children's voices on their participation and best interests during a hospital stay in Australia. *Journal of Pediatric Nursing*. 2022/03/01/ 2022;63:64-71. doi:https://doi.org/10.1016/j.pedn.2022.01.003.
- **14.** Gibson LY, Lockyer B, Dickerson J, et al. Comparison of Experiences in Two Birth Cohorts Comprising Young Families with Children under Four Years during the Initial COVID-19 Lockdown in Australia and the UK: A Qualitative Study. *Int J Environ Res Public Health*. Aug 29 2021;18(17)doi:10.3390/ijerph18179119.
- **15.** Hadlow NC, Brown SJ, Lim EM, et al. Anti-Müllerian hormone concentration is associated with central adiposity and reproductive hormones in expectant fathers. *Clin Endocrinol (Oxf)*. Mar 23 2022;doi:10.1111/cen.14725.
- **16.** Hall M, Oakey H, Penno MAS, et al. Mental Health During Late Pregnancy and Postpartum in Mothers With and Without Type 1 Diabetes: The ENDIA Study. *Diabetes Care*. 2022;45(5):1082-1090. doi:10.2337/dc21-2335.

- **17.** Harbison JE, Thomson RL, Wentworth JM, et al. Associations between diet, the gut microbiome and short chain fatty acids in youth with islet autoimmunity and type 1 diabetes. *Pediatric Diabetes*. 2021;22(3):425-433. doi:https://doi.org/10.1111/pedi.13178.
- **18.** Hii J, Templeton TW, Sommerfield D, Sommerfield A, Matava CT, von Ungern-Sternberg BS. Risk assessment and optimization strategies to reduce perioperative respiratory adverse events in pediatric anesthesia-Part 1 patient and surgical factors. *Paediatr Anaesth*. Feb 2022;32(2):209-216. doi:10.1111/pan.14377.
- **19.** Hood R, Zabatiero J, Silva D, S RZ, Straker L. 'There's good and bad': parent perspectives on the influence of mobile touch screen device use on prenatal attachment. *Ergonomics*. Feb 28 2022:1-16. doi:10.1080/00140139.2022.2041734.
- **20.** Hood R, Zabatiero J, Silva D, Zubrick SR, Straker L. "Coronavirus Changed the Rules on Everything": Parent Perspectives on How the COVID-19 Pandemic Influenced Family Routines, Relationships and Technology Use in Families with Infants. *International Journal of Environmental Research and Public Health.* 2021;18(23):12865.
- **21.** Hope CM, Huynh D, Wong YY, et al. Optimization of Blood Handling and Peripheral Blood Mononuclear Cell Cryopreservation of Low Cell Number Samples. *International Journal of Molecular Sciences*. 2021;22(17):9129.
- **22.** Isaacs SR, Foskett DB, Maxwell AJ, et al. Viruses and Type 1 Diabetes: From Enteroviruses to the Virome. *Microorganisms*. 2021;9(7):1519.
- 23. Keelan S, Bogle M, Gurung B, Dorfman G. Highly aggressive neuroendocrine neoplasm of the ascending colon: a wolf in sheep's clothing. *Ann R Coll Surg Engl*. Apr 2022;104(4):e98-e101. doi:10.1308/rcsann.2021.0168.
- 24. Loke P, Chebar Lozinsky A, Orsini F, et al. Study protocol of a phase 2, dual-centre, randomised, controlled trial evaluating the effectiveness of probiotic and egg oral immunotherapy at inducing desensitisation or sustained unresponsiveness (remission) in participants with egg allergy compared with placebo (Probiotic Egg Allergen Oral Immunotherapy for Treatment of Egg Allergy: PEAT study). *BMJ Open*. 07 07 2021;11(7):e044331. doi:10.1136/bmjopen-2020-044331.
- **25.** McGorm KJ, Brown JD, Thomson RL, et al. A Long-Term Evaluation of Facebook for Recruitment and Retention in the ENDIA Type 1 Diabetes Pregnancy-Birth Cohort Study. *Journal of Diabetes Science and Technology*. 0(0):19322968221079867. doi:10.1177/19322968221079867
- **26.** Otto M, Burrell AJ, Serpa Neto A, et al. Clinical Characteristics and Outcomes of Critically III Patients with 1, 2 and 3 doses of Vaccination against COVID-19 in Australia. *Intern Med J. Jul* 16 2022;doi:10.1111/imj.15884.
- **27.** Palmer DJ, Keelan J, Garssen J, et al. Study Protocol for a Randomised Controlled Trial Investigating the Effects of Maternal Prebiotic Fibre Dietary Supplementation from Mid-Pregnancy to Six Months' Post-Partum on Child Allergic Disease Outcomes. *Nutrients*. Jul 2 2022;14(13)doi:10.3390/nu14132753.
- 28. Penno MAS, Anderson AJ, Thomson RL, et al. Evaluation of protocol amendments to the Environmental Determinants of Islet Autoimmunity (ENDIA) study during the COVID-19 pandemic. *Diabetic Medicine*. 2021;38(11):e14638. doi:https://doi.org/10.1111/dme.14638.
- **29.** Perveen K, Quach A, McPhee A, et al. Cord Blood T Cells Expressing High and Low PKCζ Levels Develop into Cells with a Propensity to Display Th1 and Th9 Cytokine Profiles, Respectively. *Int J Mol* Sci. May 5 2021;22(9)doi:10.3390/ijms22094907.
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- **31.** Pettigrew S, Jongenelis MI, Cronin S, et al. Health-related behaviours and weight status of expectant fathers. *Aust N Z J Public Health*. Mar 31 2022;doi:10.1111/1753-6405.13216.
- **32.** Plummer MP, Rait L, Finnis ME, et al. Diabetes mellitus, glycaemic control, and severe COVID-19 in the Australian critical care setting: A nested cohort study. *Aust Crit Care*. May 23 2022;doi:10.1016/j.aucc.2022.05.002.

- **33.** Porter P, Brisbane J, Abeyratne U, Bear N, Claxton S. A smartphone-based algorithm comprising cough analysis and patient-reported symptoms identifies acute exacerbations of asthma: a prospective, double blind, diagnostic accuracy study. *J Asthma*. Apr 4 2022:1-9. doi:10.1080/02770903.2022.2051546.
- **34.** Porter P, Brisbane J, Tan J, et al. Diagnostic Errors Are Common in Acute Pediatric Respiratory Disease: A Prospective, Single-Blinded Multicenter Diagnostic Accuracy Study in Australian Emergency Departments. *Front Pediatr.* 2021;9:736018. doi:10.3389/fped.2021.736018.
- **35.** Rajanthiran L, Curtis G, Ayalde J, et al. 'Is hearing believing?': A study of voices and beliefs in psychosis and trauma. *Australasian Psychiatry*. 0(0):10398562221106064. doi:10.1177/10398562221106064.
- **36.** Rengel AC, Davel S, O'Connor S, Medcraft N. Rhabdomyolysis due to jellyfish envenomation in Western Australian waters. *Med J Aust*. Apr 5 2022;doi:10.5694/mja2.51478.
- **37.** Roth-Schulze AJ, Penno MAS, Ngui KM, et al. Type 1 diabetes in pregnancy is associated with distinct changes in the composition and function of the gut microbiome. *Microbiome*. 2021/08/06 2021;9(1):167. doi:10.1186/s40168-021-01104-y.
- **38.** Rueter K, Jones AP, Siafarikas A, Chivers P, Prescott SL, Palmer DJ. The Influence of Sunlight Exposure and Sun Protecting Behaviours on Allergic Outcomes in Early Childhood. *Int J Environ Res Public Health*. May 19 2021;18(10)doi:10.3390/ijerph18105429.
- **39.** Saw C, Tan J, Srinivajois R. Risk factors for Hypoglycaemia with Hypothermia in Neonates: An audit in a level II Special Care Nursery. *Pediatrics & Therapeutics*. 2021;10(6):379.
- **40.** Srinivas Jois R, Rao S. Management of umbilical granuloma in infants: A systematic review of randomised controlled trials. *Aust J Gen Pract*. Aug 2021;50(8):589-594. doi:10.31128/ajgp-04-20-5371.
- **41.** Srinivasjois R, Tan J, Silva D, Pereira G. Gut microbiota modification in neonatal age group on the risk of respiratory tract infections in infancy: A systematic review and meta-analysis of randomized controlled trials. *J Evid Based Med.* Dec 2021;14(4):291-294. doi:10.1111/jebm.12459.
- **42.** Taylor S, Lee H, Singh R. Innocent until proven guilty: acute on chronic tubal torsion mimicking pelvic inflammatory disease. *J Surg Case Rep.* Published by Oxford University Press and JSCR Publishing Ltd. © The Author(s) 2021.; 2021:rjab187. vol. 5.
- **43.** Templeton TW, Sommerfield D, Hii J, Sommerfield A, Matava CT, von Ungern-Sternberg BS. Risk assessment and optimization strategies to reduce perioperative respiratory adverse events in Pediatric Anesthesia-Part 2: Anesthesia-related risk and treatment options. *Paediatr Anaesth*. Feb 2022;32(2):217-227. doi:10.1111/pan.14376.
- **44.** Wibrow B, Martinez FE, Myers E, et al. Prophylactic melatonin for delirium in intensive care (Pro-MEDIC): a randomized controlled trial. *Intensive Care Med.* Apr 2022;48(4):414-425. doi:10.1007/s00134-022-06638-9.
- **45.** Zorbas JS, Ho KM, Litton E, Wibrow B, Fysh E, Anstey MH. Airway pressure release ventilation in mechanically ventilated patients with COVID-19: a multicenter observational study. *Acute Crit Care*. May 2021;36(2):143-150. doi:10.4266/acc.2021.00017.

## Current Research<sup>1</sup>

## ALLIED HEALTH (Dietetics, Occupational Therapy, Physiotherapy, Speech Pathology)

- A Phase 3, Multi-Arm, Multi-Stage Covariate-Adjusted, Response-Adaptive, Randomised Trial to determine
   Optimal Early Mobility Training after Stroke (Avert Dose)
- Does malnutrition risk affect rehabilitation progress?
- Evaluating implementation and acceptability of embedding E-Health Pregnancy Lifestyle, Activity, Nutrition (PLAN) into routine clinical practice pathways to provide a healthy start to life
- From Observing to Doing: Embedding Entrustable Professional Activities in Allied Health Placements
- · Hemi-Hamate Arthroplasty Rehabilitation Protocol
- Nutrition in Pregnancy Following Bariatric Surgery
- ORIF (Open Reduction Internal Fixation) with hook plate for bony mallet fractures
- · Stand up for Chronic Obstructive Pulmonary Disease
- The role of executive function in discourse production and health-related quality of life in aphasia
- Adopting a standardised goniometry guideline in a hospital outpatient hand therapy clinic: exploring therapist attitudes and behaviours
- INTEGRATE A feasibility trial of stratified Cognitive Functional Therapy for neck and back injuries following road traffic crash

#### CARDIOLOGY

- Classification of chronic heart failure using sound recordings
- Functional status of survivors of out-of-hospital cardiac arrest in Perth, Western Australia
- Is the incidence of heart attack still decreasing in Australia? Developing more reliable methods for monitoring trend in myocardial infarction and coronary heart disease
- Microbiota Profile in Acute Coronary Syndrome
- Microbiota Profile in Heart Failure and Heart Transplant
- Pacemaker Manufacturer Identification with AI to Streamline Patient Flow

#### **EMERGENCY MEDICINE**

- A retrospective review of the appropriate usage of CT abdomens in patients presenting with abdominal pain to Joondalup Health Campus Emergency Department
- A validation study to predict poor outcomes following mild traumatic brain injury
- Audit of Emergency Department Paediatric Wheeze Severity Action Plan
- Audit of Paediatric Emergency Surgical Transfers
- · Australia New Zealand Trauma Registry
- Australian Snakebite Project (ASP)
- Back pain in Joondalup Health Campus Emergency

  Department: a continuous quality improvement project
- CREST Concussion Recovery Study
- Drawing blood from a peripheral intravenous cannula and its effect on cannula dwell time, phlebitis, and blood stream infection: A randomised controlled study
- Evaluation of the expansion of take-home naloxone project conducted by the Mental Health Commission
- Examination of the interuser reliability of the Joondalup Health Campus paediatric wheeze severity scoring tool
- Exploring the factors associated with early representation to the emergency department in people living with heart failure
- Retrospective review of Head CT Scans for patients presenting to Joondalup Health Campus Emergency Department
- Retrospective review of the appropriateness of cervical spine CT for trauma patients presenting to Joondalup Health Campus ED
- Sampling blood from peripheral intravenous cannulas, venepuncture and haemolysis rates: An observational study
- The impact of the Goals of Patients care Summary on Documentation of Advance Care Planning Discussions with Patients and their Surrogate Decision Makers

#### **GENERAL MEDICINE AND TRAINING**

- Diagnostic accuracy in the era of expanded medical tests and an instrumental variable analysis of test ordering
- General Practice (GP) Project: Hospital GP Training Pathway

#### **IMMUNOLOGY AND INFECTIOUS DISEASE**

- Curious Cases of Covid-19: An Australian retrospective audit
- Serology Survey of Health Care Workers following close contact with positive COVID-19 Participants whilst wearing Personal Protective Equipment in a low community prevalence setting
- Troublesome Ticks: Determining the aetiology of DSCATT in Australia

#### INTENSIVE CARE MEDICINE

- ICU Consumer Research Survey
- Short PeRiod IncideNce sTudy of Severe Acute Respiratory Infection (SPRINT-SARI)
- The impact of an m-health recovery program on the mental health and wellbeing of intensive care survivors: A randomized controlled trial

#### **MENTAL HEALTH**

- A comparison of hearing voices between three groups of subjects with the diagnosis of Posttraumatic Stress Disorder, Schizophrenia and comorbid Schizophrenia/ PTSD
- Caring for patients who have used methamphetamine: A pilot study exploring the experiences of West Australian nurses working in an Authorized Mental Health Unit
- The nurse's role in screening for mental health issues in general clinical environments: An evaluation of a Behavioural/Mental Health Screening Tool

## NURSING AND MIDWIFERY (Not classified elsewhere)

- Adherence to evidence based guidelines for indwelling urinary catheter management
- Critical Thinking Development in Undergraduate
   Midwifery Students: An Australasian validation study
- Development, testing, implementation and evaluation of an employee recruitment process to optimise the likelihood of midwife retention in Western Australia

- Exploring the impact of a delirium assessment tool on delirium prevalence, outcomes and management during a hospital admission
- Nurse led volunteer support interventions and a technology driven pain assessment for older adults in hospital
- Nurses' and midwives' perceptions of research capacity and culture
- Preparing the nursing workforce for a pandemic response
- Understanding Nurses' perception of their non-technical skills in response to and reporting of clinical deterioration in medical-surgical wards

#### **OBSTETRICS AND GYNAECOLOGY**

- An evaluation of the clinical utility and acceptability of maternally-administered foetal heart rate monitoring using a remote medical-grade device: The HeraBEAT Trial
- Environmental Determinants of Islet Autoimmunity (ENDIA)
- Implementation and evaluation of the Connected Maternity Care model: integrating a digital pregnancy management platform for Ramsay Health Care
- Mackenzie's Mission: The Australian Reproductive Carrier Screening Project

#### **ONCOLOGY AND HAEMATOLOGY**

- PACIFIC-R: First real-world data on unresectable stage III NSCLC patients treated with durvalumab after chemotherapy
- Role of patient HLA class I genotype as a predictive biomarker of response to immunotherapy in lung cancer
- Treatment of stage I low rectal cancer in Australia: analysis of trends over 10 years
- Valuing aspects of cancer care: Patient and population perspectives

## ORIGINS PROJECTS – OBSTETRICS, PAEDIATRICS AND NEONATOLOGY

- A Family's Journey at Joondalup Health Campus:
   Analysis of routinely collected data
- A Pilot Study of a behavioural intervention for increasing the quality of parent-baby social interactions in the first months of life: The Engage Study
- A randomised controlled trial: Effect of probiotics on gut microbiome and vaccine responses in newborns with antibiotic-induced dysbiosis (ADAPTS: Antibiotic Dysbiosis and Probiotics Trial in InfantS)
- A randomised-controlled trial of a behavioural intervention for optimising social and communication of newborns at high genetic risk of autism spectrum disorders
- A vulnerable airway epithelium: A pilot study to assess recruitment and nasal sampling in newborns
- An intervention to enhance psychological well-being in families from pregnancy to infancy
- BioMood: A pilot study of associations between Mediterranean diet, microbiome, metabolome and mental health in pregnant women
- Breastfeeding and Eating Nuts and Eggs For Infant Tolerance (BENEFIT) Trial
- Built Environments And Child Health in WalEs and AuStralia (BEACHES)
- Contribution of a novel mast cell subset to development of atopic disease
- Deciphering Bifidobacterium diet- immune interactions in global infant populations
- Diabetes during pregnancy and subsequent child development: A 3-year follow up study
- · Early Moves Study
- Examining subfertility in a prospective birth cohort
- Helping new mothers to breastfeed before their babies are even born
- Importance of early breastfeeding practice for healthy development
- Introducing cashew nuts during infancy: The Cashew Study
- · Kindy readiness in the ORIGINS cohort

- Maternal and Neonatal Factors Affecting Neonatal Body Fat Percentage
- Maternal diet rich in eggs and peanuts to reduce food allergies: a randomised controlled trial (PrEggNut Study)
- MULTIDIMENSION-ALL the use of 2, 3 and 4D facial and non-facial image analysis for rare and more common disorders
- Mums minds matter: A pilot study of antenatal mindfulness and self-compassion training to reduce maternal stress and support wellbeing
- Onset of severe RSV bronchiolitis due to identified maternal or environmental viral transmission (ORBIT)
- ORIGINS Community Wellbeing during the COVID-19
   Pandemic Part B: ORIGINS Team, Collaborators and Joondalup Health Campus Staff
- Origins of neurodevelopmental risk and resilience:
   Examining neurodevelopmental trajectories of infants in the ORIGINS cohort
- Screen ORIGINS: First longitudinal study of the multidimensional influences and impacts of contemporary screen technology use over the first five years of life
- Screen ORIGINS: Qualitative investigation of parental views and practices regarding screen technology use by young children
- Tele-screening for tooth decay in early childhood during COVID-19 pandemic
- Testosterone and Language in Kids (TALK) Study
- The Airway Epithelium Respiratory Illnesses and Allergy "AERIAL" Study Vulnerable from the first breath

   epithelial dysfunction and respiratory outcomes in children
- The Cardiovascular Risk Evaluation in expectant fathers (CARE-Dads) Study
- The COVID Community compassion Study (COCOON):
   Assessing virus transmission immunity development and wellbeing of families during COVID-19
- The Flourishing ORIGINS Child Phase 1: stakeholder consultation and co-design – understanding the determinants of flourishing in the early years
- The Impact of a Mediterranean diet and physical activity in pregnancy on gestational weight gain and neonatal body composition at birth and weight at 1 year of age

- The Nature Play & Grow Project: an ORIGINS sub-project
- The ORIGINS Project: A healthy start to life for a better future
- The PLANET Project PLAstics iN prEgnancy ProjecT
- The STORK Project (STress biOmaRKers) A pilot retrospective observational study to assess biomarkers of stress and serotonin pathways in pregnant women in the ORIGINS Project
- The SunPreg Study: Measuring sun exposure in pregnancy and its association with the development of early childhood allergies
- The SYMBA study: Improving gut biodiversity with soluble fibre and probiotic supplementation in early life to prevent allergic disease
- Time Out for Wellbeing: an experimental study within the ORIGINS Project pregnancy cohort
- The effects of chlorinated drinking water on the assembly of the infant gut microbiome: Water Quality and the Microbiome (TUM) Study
- Understanding how a childhood burn can change your life trajectory
- Validating the Global Scale for Early Development in Western Australia

Plus project (PLAN Project) which is listed under Allied Health

#### **ORTHOPAEDICS**

- Assessment of Postoperative Pain Management in the Intermediate Period Following Unilateral Total Knee Arthroplasty
- DISTINCT: Dual Mobility Versus Standard Total Hip Arthroplasty In Femoral Neck Fractures, A Registry-Nested, Cluster-randomised Trial
- Effect of arthroscopic femoroacetabular impingement surgery on pelvic tilt (FAI)
- Functional lower limb torsion and its implications on the level of osteotomy: a CT rotational profile study
- Investigating the pharmacodynamics of the acetylcholine-esterase inhibitors and therapeutic benefits on osteoporotic bone
- · National Joint Replacement Registry

#### **PAEDIATRICS AND NEONATOLOGY**

- A Respectful Approach to early parenting: Impact on parent and child wellbeing
- Children's participation in the decision-making process during hospitalisation
- Clinical Experience of Subgaleal Haemorrhage
- Cognitive Improvement by early Restoration of cirCADian rhythms in very preterm Infants through Environmental Modification: The CIRCA DIEM Study
- Contemporary Idiopathic Childhood Constipation
   Health Education within the Primary Health Care Setting
   and its Utilisation by Families living in Perth, Western
   Australia: A Mixed Methods Study
- Cough conundrum: How good are we as clinicians at diagnosing croup?
- Enhancing Management of Perioperative High risk patients through Assessment of oxygen Saturation and Sleep quality (EMPHASIS)
- Environmental and lifestyle changes in the antenatal population over the past three decades: A comparative study utilizing Raine Study and Joondalup Health Campus birth cohort data
- Father's Matter: Fathers experiences of caring for their late preterm infants in the neonatal unit
- Safely Preventing Errors and Complications due to Inappropriate Allergy Labelling: The SPECIAL Study – The Paediatric Study

#### REHABILITATION AND GERIATRICS

- Australian and New Zealand Hip Fracture Registry (ANZHFR)
- Short-term postoperative complications and mortality outcomes following fractured neck of femur surgery

#### **RENAL MEDICINE**

 Protection against Incidence of Sudden Cardiovascular Events Study with daily fish oil supplementation in dialysispatients (PISCES Study)

#### **RESPIRATORY MEDICINE**

Diagnosis of respiratory illness using non-contact sound recordings

#### STROKE SERVICE

- The impact of attention on mobility for patients under 65 years with posterior circulation stroke
- The Australian Stroke Clinical Registry

#### SURGERY (Including Ear, Nose and Throat Surgery)

- Binational Colorectal Cancer Audit
- Establishment of a Bariatric Surgery Clinical Quality Registry
- Histology in Post Tonsillectomy Haemorrhage
- Reliability of estimating blood loss in epistaxis and the value of a visual aid
- Single Use Negative pRessure Dressing for Reduction In Surgical site infection following Emergency laparotomy (SUNRRISE)
- Surgical management of pilonidal sinus disease: a retrospective cohort study
- Venous thromboembolic events following cytoreductive surgery: A single centre experience
- Western Australian Peritonectomy Service A Review of the First Six Years of Operation of a Low Volume Peritonectomy Centre







Part of Ramsay Health Care

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People caring for people.